

What is sickle cell trait?

Sickle cell trait is part of a group of conditions called **hemoglobinopathies**. Hemoglobinopathies are conditions that occur when a person has a change in a protein called **hemoglobin**. Our blood cells use hemoglobin to carry oxygen from our lungs to other parts of the body.

Sickle cell trait is **hereditary** (passed from parent to child). Everyone inherits two copies of the hemoglobin gene (one from our mothers and one from our fathers). When the hemoglobin gene is changed, the gene cannot work properly. People with **sickle cell disease** have two sickle cell gene changes. People with **sickle cell trait** have one sickle cell gene change. People who have one sickle cell gene change are called **carriers**.

Does everyone in my family have sickle cell trait?

Not everyone in your family will have sickle cell trait. However, if one person in a family is a sickle cell carrier or has sickle cell disease, it is important for all family members to be tested. People who are sickle cell carriers usually do not have any health problems caused by sickle cell trait, but have a higher chance of having a child with sickle cell disease.

Can sickle cell trait turn into sickle cell disease?

No. People with sickle cell disease have two sickle cell gene changes. A person with sickle cell trait only has one sickle cell gene change and cannot develop a second sickle cell gene change later in life.

What health problems do people with sickle cell trait have?

Most people with sickle cell trait do not have any health problems due to sickle cell trait. However, some people with sickle cell trait can have health problems that look like an **episode** or **crisis** of sickle cell disease. These episodes usually happen when a person with sickle cell trait does an activity that causes the body to work harder than normal, such as playing sports such as soccer, football, or basketball. Symptoms of an episode can include:

- ☐ Shortness of breath
- ☐ Dizziness
- ☐ Headache
- ☐ Coldness in the hands and feet
- ☐ Pale skin
- ☐ Chest pain

What can I do to help prevent health problems related to sickle cell trait?

Parents of children with sickle cell trait should make sure that their child:

- ☐ Gets **regular health check-ups**
- ☐ Drinks plenty of **fluids**
- ☐ Gets plenty of **rest**
- ☐ Takes **medications and vitamins** (including folic acid)
- ☐ Avoids getting too hot or cold

Your child's doctor can answer any other questions about risks your child may have when playing sports or other activities.

Who can I talk to about sickle cell trait?

Northwest IN Sickle Cell Program

4810 West Fifth Ave.

Gary, IN 46406

(219) 949-5310

(Northwest Indiana)

North Central IN Sickle Cell Program

613 Monroe Circle

South Bend, IN 46601

(574) 251-6055

(North Central and Northeast Indiana)

Martin Center, Inc.

3549 North College

Indianapolis, IN 46205

(317) 927-5165

(Central and Southern Indiana)

Indiana State Department of Health

2 North Meridian Street, 7F

Indianapolis, IN 26204

(888) 815-0006

Sickle Cell Disease Association of America, Inc.

Website: www.sicklecelldisease.org



Indiana State
Department of Health

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